

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-13. (cancelled)

14. (previously presented) An information recording apparatus comprising:

a recording device capable of recording information into a data area of an information recording medium, by irradiating laser light, in conformity with a predetermined error correction method;

an optimum-recording-power detecting device for obtaining an optimum recording power of the laser light, by recording test writing data into a data area portion with a length which is equal to or less than an allowable defect length in the predetermined error correction method, within the data area, by using said recording device; and

a controlling device for controlling said recording device to record the information into the data area with the obtained optimum recording power.

15. (previously presented) The information recording apparatus according to claim 14, wherein said optimum-recording-power detecting device uses a near portion of a position into which the information is actually recorded, as the data area portion.

16. (previously presented) The information recording apparatus according to claim 14, wherein said optimum-recording-power detecting device uses a portion with a length which is shorter than the allowable defect length by a margin set in advance, as the data area portion.

17. (previously presented) The information recording apparatus according to claim 14, wherein said optimum-recording-power detecting device uses a portion other than a portion where a synchronization signal is recorded in the data area, as the data area portion.

18. (previously presented) The information recording apparatus according to claim 14, wherein said optimum-recording-power detecting device uses a portion with a length within a tolerance of a tracking servo error in tracking servo when the information is recorded or reproduced, as the data area portion.

19. (previously presented) The information recording apparatus according to claim 14, wherein said optimum-recording-power detecting device uses a portion with a length which is equal to or less than the allowable defect length, by each error correction unit in the predetermined error correction method, as the data area portion.

20. (previously presented) The information recording apparatus according to claim 14, wherein said optimum-recording-power detecting device distributes the data area portion into a plurality of error correction units in the predetermined error correction method, in a form of a divided portion with a length which is equal to or less than the allowable defect length, if the test writing data is longer than the allowable defect length.

21. (previously presented) The information recording apparatus according to claim 14, wherein said information recording medium has an exclusive test writing area to write therein the test writing data, apart from the data area, and said optimum-recording-power detecting device firstly obtains the optimum recording power, by recording the test writing data into the exclusive test writing area by using the recording device before recording the test writing data into the data area portion, and records the test writing data into the data area portion after the exclusive test writing area is filled up with the test writing data.

22. (previously presented) An information recording method on an information recording apparatus comprising a recording device capable of recording information into a data area of an information recording medium, by irradiating laser light, in conformity with a predetermined error correction method, said information recording method comprising:

an optimum-recording-power detecting process of obtaining an optimum recording power of the laser light, by recording test writing data into a data area portion with a length which is equal to or less than an allowable defect length in the predetermined error correction method, within the data area, by using said recording device; and

a controlling process of controlling said recording device to record the information into the data area with the obtained optimum recording power.

23. (previously presented) An information recording / reproducing apparatus comprising:

a recording device capable of recording information into a data area of an information recording medium, by irradiating laser light, in conformity with a predetermined error correction method;

an optimum-recording-power detecting device for obtaining an optimum recording power of the laser light by recording test writing data into a data area with a length which is equal to or less than an allowable defect length in the predetermined error correction method, within the data area, by using said recording device;

a controlling device for controlling said recording device to record the information into the data area with the obtained optimum recording power; and

a reproducing device for reproducing the information from said information recording medium.

24. (previously presented) An information recording / reproducing method on an information recording / reproducing apparatus comprising a recording device capable of recording information into a data area of an information recording medium, by irradiating laser light, in conformity with a predetermined error correction method comprising:

a reproducing process of reproducing the information from an information recording medium;

an optimum-recording-power detecting process of obtaining an optimum recording power of the laser light, by recording test writing data into a data area portion with a length which is equal to or less than an allowable defect length in the predetermined error correction method, within the data area, by using said recording device; and

a controlling process of controlling said recording device to record the information into the data area with the obtained optimum recording power.

25. (currently amended) A computer readable recording medium recording thereon a computer program for tangibly embodying a program of instructions executable by a computer provided for an information recording apparatus, said computer program product making the computer function as at least one portion of a recording device, an optimum recording power detecting device, and a controlling device, said information recording apparatus comprising when executed by the computer performing the method of:

~~said recording device capable of recording information into a data area of an information recording medium, by irradiating laser light, in conformity with a predetermined error correction method;~~

~~said optimum recording power detecting device for obtaining an optimum recording power of the laser light, by recording test writing data into a data area portion with a length which is equal to or less than an allowable defect length in the predetermined error correction method, within the data area, by using said recording device; and~~

~~said controlling device for controlling said recording device to record the information into the data area with the obtained optimum recording power.~~

26. (currently amended) A computer readable recording medium recording thereon a computer program for tangibly embodying a program of instructions executable by a computer provided for an information recording—/— and reproducing apparatus, said computer program product making the computer function as at least one portion of an information recording apparatus and a reproducing device for reproducing information from an information recording medium, when executed by the computer performing the method of:

~~said information recording apparatus comprising:~~
~~a recording device capable of recording information~~
into a data area of said information recording medium, by irradiating laser light, in conformity with a predetermined error correction method;

~~an optimum recording power detecting device for~~
obtaining an optimum recording power of the laser light, by recording test writing data into a data area portion with a length which is equal to or less than an allowable defect length in the predetermined error correction method, within the data area, by using said recording device; and

~~a controlling device for controlling said recording device~~—to record the information into the data area with the obtained optimum recording power.